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EDUCATIONAL NEEDS IN MONTANA: AN ANALYTIC STUDY

report to

SUPERINTENDENT OF PUBLIC INSTRUCTION
STATE OF MONTANA

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March 1970

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I. SUMMARY

This year about 150 million dollars will be spent to educate approximately 175,000 elementary and secondary students in Montana. Are these young people receiving optimum benefit from this expenditure? What are the present needs in education in the state? Where should changes be made to meet these needs? The answers to these questions are vital to educators, students, and parents and to the future of Montana.

Montana's educational needs have been defined by nearly 10,000 Montanans. Last year the Superintendent of Public Instruction contracted with Arthur D. Little, Inc., (ADL) for a thorough, quantitative analysis of educational needs in the state. The residents who participated in the survey -- students, educators, parents, and community leaders -- expressed their views on present educational practices and on changes that they thought were needed. The study summarized here reports their definition of needs in education and their judgment concerning which needs are most urgent. It also establishes criteria for the design and subsequent evaluation of innovative programs.

A brief description of the methods used in this study will help the reader to understand the importance of its findings. Most of the data were gathered by survey questionnaires, developed by ADL and by Montana educators, which covered 51 issues in education. (These issues were selected on the basis of a preliminary interview study reported in December 1968 in the state.) The anonymous respondents were students, high school dropouts, educators, parents, and community leaders in a representative sample of 69 school districts. Three questions in a multiple-choice format were asked about each issue: What *is* the situation in your school now? What do you think the situation *ought* to be? How important is this issue, compared to the others, with regard to need for improvement? Some additional data was obtained through interviews with groups not easily reached by questionnaires. Computer analysis provided a quantitative description of the distributions of answers for each respondent group and for the whole sample.

What do almost 10,000 Montana residents think about important questions in education? Which areas do they rank the highest in need of improvement? Quantitative analysis of the data showed that the following 16 issues, presented in order of importance, are most urgently in need of improvement.

1. The relevance of subjects to students' future plans.

The respondents indicate that "most" subjects now *are* related to what students plan to do in the future, but that the *desirable* situation would be for "almost all" the subjects to be relevant. This need for improvement is judged greater at the high school level than for the elementary grades.

2. The relevance of subjects to students' present needs.

All the respondent groups indicate a significant difference between the situation as it is and as they want it to be. "Most" subjects *are* relevant, they say, but "almost all" subjects *ought to be*. Students judge that there *is* less relevance than do the other groups.

3. Help for students with reading problems.

Answers to questions on this issue indicate that help for reading problems *is* available "occasionally" but that it *should be* available "regularly." Students' and teachers' responses show that such help is more commonly available in elementary schools than in high schools. High school students, although their is/ought responses are similar to those of the other groups, rank the priority of need for this issue much lower than do the other groups.

4. Teachers helping students with learning.

Questions about this area were designed to find out whether an individual student who does not understand the lesson can come to the teacher for help. Elementary and secondary teachers recognize *some* difference between their own practices and what they consider the ideal. All groups except students in grades 4-6 perceive a *need* for individual help to be available "almost always." Teachers and students in grades 7-12 judge that help *is* now available between "almost always" and "usually." Students in grades 4-6 see help as "usually" available now. The differences between the present situation and the desirable one are significant as seen by elementary and high school students and by high school educators.

5. Students learning about themselves.

Questions about this issue were framed in terms of whether there are courses or units on how students feel about themselves and other people. Parents and community leaders, educators, and high school students indicate that very few such courses *are* available; one group (grades 7-8) says that "some" such courses *are* taught. For all groups, the differences between "is" and "ought" answers are highly significant. All groups indicated that between "some" and "many" such courses should be available.

6. Training in treating students as individuals.

Elementary and high school educators were asked how much training and experience they have/should have in treating their students as individuals with different personalities, abilities, and interests. Educators responded that they have some training or experience, but there is a statistical significant difference between this and what they say *should* have, i.e., a "good deal of" training or experience.

7. Students directing their own studies.

High school students perceive a highly significant difference between the present situation and what they deem desirable. High school students were asked how much opportunity they have/should have to develop skills in organizing and directing their studies. They *have* "some" opportunities; they believe they should have between "many" and "some."

8. Adequacy of college preparation.

Parents and community leaders (including college and university professors) were asked about the adequacy of students' preparation for college. The differences between their "is" answers and their "ought" answers are highly statistically significant; both groups think the preparation is "good" but want it to be between "good" and "excellent."

9. Encouraging student independence through ideas and questions.

For all groups queried, the differences between the situation as it is and as it ought to be are highly significant. Students and teachers typically indicate that between "sometimes" and "usually" students are encouraged to exercise critical thinking; the desirable situation, they say, would be for this to be the case "usually."

10. Range of vocational-technical education.

The groups queried show highly significant differences between "is" and "ought." About a quarter of the respondents say that *no* vocational-technical education is available in their high schools. The groups agree that, typically, one to three occupational courses *are* available but that courses *ought to be* available in four to seven occupations. High school dropouts believe courses in eight or more occupations should be available.

11. Availability of counseling on job and training opportunities.

Parents and community leaders give this area a much higher ranking of need for improvement than do high school students and educators, but all of the groups indicate a highly significant difference between the present situation and a desirable one. Typically, such counseling is available "whenever a student requests it." Dropouts are more likely than students in school to indicate such counseling is not available. It ought to be available, the respondents believe, "on a scheduled basis *and* whenever any student requests it."

12. Availability of counseling for personal problems.

There is considerable range of opinion about what the present situation *is*, but for all groups the is/ought differences are highly statistically significant. Parents, community leaders, and educators feel that this kind of counseling should be available "on a scheduled basis for all students *and* whenever a student requests it." Students' responses are typically between this answer and "only when a student requests it."

13. Examination of material from different points of view.

Students and educators were asked how often teachers do/should encourage students to examine from different points of view the material that they are learning. The "is" answers differ from the "ought" with a high degree of statistical significance. The perceptions of the present situation vary among the groups, but all groups agree that, ideally, teachers should "often" encourage students to examine the course material from different points of view.

14. Use of audio-visual materials.

Educators and high school students were asked about this area. The respondent groups feel a need for more frequent use, as often as two or three times a week, of such materials as films, filmstrips, recordings, etc. The differences between "is" responses and "ought" are highly statistically significant.

15. Educational field trips.

All student and educator groups give "is" and "ought" responses which differ to a highly significant degree. Students, both high school and elementary, give this a much higher priority of need for improvement than do the educators. Students and educators agree that the desirable frequency of field trips is almost "once a month."

16. Administrative support for individualized instruction.

Elementary and secondary teachers were asked whether their administrators encourage/should encourage teachers to:

> Concentrate on keeping up with the prescribed curriculum even if this means they cannot take time to help individual students.
>
> Maintain a balance between keeping up with the prescribed curriculum and helping individual students.
>
> Concentrate on helping individual students, even if this means dropping behind the prescribed curriculum.

The responses create a puzzling picture. Most teacher groups give to the "is" and "ought" questions answers that are so similar that the differences between them are not statistically significant. However, elementary teachers give this issue 6th priority (out of 32 issues) for need for improvement; secondary teachers rank it 9th (out of 38).

The main body of this report provides a detailed description of the sampling methods used, the administration of the questionnaires, how interviews were conducted, and how the data were analyzed. The 16 areas outlined here are discussed in comprehensive detail, as are 12 additional issues identified as important. A final chapter analyzes the extent of the problem of out-migration of young Montanans and its implications for educational needs. The report also includes extensive tabulations of the data, and all forms of the questionnaire are reprinted in a separately bound annex.

People in Montana have identified the needs outlined in this summary as being critical for the state as a whole. The reader is urged to examine which critical issues presented are of highest priority for the students in *his community*. What can be done to resolve these educational needs? We hope that this report will stimulate its readers to action in their own communities. Local awareness and action, based on local talents and local, State, or Federal resources hold the key to meeting Montana's educational needs.

II. PURPOSE AND SCOPE

A. BACKGROUND

The provisions and guidelines of Title III of the Elementary and Secondary Education Act (ESEA) of 1965 stress the importance of assessing the critical educational needs to be addressed by projects funded under that title. Ammendments to ESEA require state education agencies to submit a State Plan for the administration of Title III. Montana's approved State Plan provides for the design and implementation of a program assessing educational needs.

B. PURPOSE

The purpose of this study is to assist Montana's State Superintendent of Public Instruction in designing, implementing, and documenting the needs assessment describe in its State Plan for the administration of ESEA Title III. The study therefore emphasizes a thorough and systematic analysis of the nature, intensity, and patterns of existing and emerging critical educational needs in Montana.

The objectives of Title III of ESEA will be served by making study results available to all school districts. They will then be able to compare their own need patterns with those judged to be the most critical in the state and thus be in a position to take appropriate action, including applying for funding for projects, to resolve their own critical needs that are high on the list of priorities of state-wide needs.

The 69 participating school districts can formulate Title III proposals that are responsive to identified needs, and thus facilitate the most appropriate allocation of Title III funds.

The assessment was carried out in a manner that established information base lines which can facilitate subsequent evaluation of the effects of Title III or other projects. All questionnaires and interviews were set up so that responses were computer-scorable and so that the Office of Public Instruction will be able to use the same forms for future retests.

Finally, the present study was intended to test quantitatively and statistically the conclusions of our preliminary study, Educational Needs in Montana, concluded for the Superintendent of Public Instruction in December 1968.

C. SCOPE

The scope of this study included educational needs at all levels of Montana's K-12 educational system. We applied statistical sampling and quantitative analysis methods to identify and document these educational needs. We identified such needs as could be determined by asking those people involved in, concerned with, or benefiting from education: parents and community leaders, students, educators, members of the staff of the State Office of Public Instruction, and former students.

The needs were grouped in six areas:

- curriculum
- teaching methods
- school organization and atmosphere
- counseling and information to students
- provisions for special education
- school-community relationships

The scope included the development of goals to meet Montana's immediate, critical educational needs and also the development of a long-range strategy for advancing education in the state through the best feasible use of Title III and other Federal, state, and local resources.

We also examined available demographic data and drew conclusions about patterns of out-migration of Montana youth and the kinds of occupations that these youths pursue. To the extent possible, we drew from these data implications for educational needs.

Finally, the scope included systematically analyzed feedback to the individual schools surveyed who provided enough respondents to give us statistical reliability and to avoid identification of subjects. We believe that this will help the schools in our sample to recognize their needs, and the priorities among them, more clearly and will aid them to formulate appropriate innovative programs to meet these needs. Reports were made directly to schools, without copies being made available to anyone else. These data will also enable schools, if they desire, to observe a quantitatively measured base line of present needs against which future situations may be compared.

III. A BRIEF OUTLINE OF METHOD

A. SAMPLING

Our objective in sampling was to select a number of communities which would be representative of the entire state of Montana. We used official state documents to supply us with a picture of the distribution of Montana schools and districts and their communities on various important parameters, such as location, size of school, etc. We developed a procedure to choose schools and school districts for the sample so that the set of sample characteristics would mirror that of the population of schools in Montana and so that the number of teachers and students in the sample would correspond with the desired sample sizes. The procedure resulted in a sample of 69 schools and districts which conformed to the proper distributions. Appendix A shows the distributions of the sample and of all the school districts and their similarity.

In addition to educators and students, we chose parents, community leaders, county Superintendents of Education, and high school dropouts from the communities surrounding the schools in our sample. Community leaders included mayors, city officials, school board members, legislators, labor union officials, spokesmen for low income groups, the State Employment Service, the Advisory Council on Title III, members of the Eight State Conference, clergy, members of service groups, officials of large companies, and people active in interest groups. These were identified by combing through directories and membership lists and by telephone inquiries to known community members. In each community, we identified a list of these which made up the same proportion of the total list as the sample students in these communities did of the total number of students.

Since the Office of the Superintendent of Public Instruction and university faculties in Montana include many people knowledgeable about state educational needs, we sampled people in these categories also. Respondents in the latter category were chosen randomly from universities and colleges throughout the state.

B. QUESTIONNAIRE DEVELOPMENT*

Questionnaires were developed for:

1. Parents and community leaders (included officials of the State Office of Public Instruction, county Superintendents of Education, university faculty, and the other categories of community leaders mentioned above);
2. Students, grades 4-6;
3. Students, grades 7 and 8;
4. Students, grades 9-12 (also administered to high school dropouts);
5. Educators, grades K-8 (teachers, guidance counselors, and administrators);
6. Educators, grades 9-12.

Separate questionnaires were developed for each group in accordance with their knowledge of educational needs, their perspective on the educational process, their ability to understand the language of a questionnaire and respond to questions, and our hypotheses about the needs with which they probably would be particularly concerned.

Because the number of questions (discussed below) for members of each of the six groups was larger than could be readily answered within a reasonably short time, we developed two questionnaire forms (A and B) for each group. Anchor items were used on both forms for a given group. Since the experimental design was based on the assumption of equivalence of the sub-groups taking the A and B forms of a given questionnaire, we tested whether their characteristics (age, etc.) and their distributions of answers to the anchor items were similar.

In our December 1968 report, we had preliminarily identified critical issues in Montana education. These were the issues toward which the questions were addressed. Wherever an issue could be properly addressed by one of the six respondent groups (in terms of direct knowledge of or interest in the issue), we included a question on that issue in one or both of the questionnaire forms for that respondent type. Three kinds of questions were asked about each issue.

---

*Questionnaires and distributions of responses are shown in Annex 1, separately bound.

1. The "is" question. Respondents indicated, in a multiple-choice format, the current situation relevant to the issue in their school or schools. The responses to the issue were stated so that they could indicate to individual schools and the Office of the Superintendent of Public Instruction the present situation in action or behavioral terms.

For example, we asked parents and community leaders:

HIGH SCHOOL COURSES IN FAMILY LIFE

Which one of the following comes closest to describing your community's school (s)? Choose one only and check the line next to it. Please answer frankly.

In our high school(s) units or courses in sex education and family life are

1.____required for all students.

2.____available for any student who wants them.

3.____available, but only for students with their parents' permission.

4.____ not available.

5.____I don't know.

2. The "ought" question. Respondents indicated what they thought the situation should be in their school or schools. Terms parallel to those of the "is" question were provided. For example, from the same questionnaire:

Which one of the following comes closest to describing how you think it should be in your community's school(s)? Choose one only and check the line next to it. Please answer frankly.

In our high school(s) units or courses in sex education and family life should

1.____be required for all students.

2.____be available for any student who wants them.

3.____be available, but only for students with their parents' permission.

4.____ not be available.

3. Rankings of criticalness of need. The issues were grouped together in sets of four or five items. In each set, respondents ranked the issues in order of need for improvement, as they saw it. The sets were arranged so that each issue was compared with each other issue on its questionnaire once and only once. For example:

Rank the areas in each set in terms of how important you think it is to improve them soon in your school(s). Put a check under the "1" next to the area you think needs improvement most soon. Put a check under the "4" next to the area you think needs improvement least soon. Then fill in the middle ranks. Do not rank any ties. Even if two areas seem almost equally in need of improvement, rank one differently from the other. Please give your own frank opinion, regardless of how easy or difficult it would be to improve the areas.

	Most 1	2	3	Least 4
1. A. (1) Relevance of subjects to future plans of students.				
B. (2) Opportunities for students to understand themselves.				
C. (3) High school courses in family life.				
D. (4) Range of vocational-technical education available.				

The questionnaires went through a number of drafts and then were pretested with people like those who would complete them in their final form. During pretests, respondents answered the questionnaires and then discussed their format and content with professionals working on the project. (As in many other phases of the work, some of these professionals were Arthur D. Little, Inc., (ADL) case team members; some were members of the Superintendent of Public Instruction Title III staff; one was a consultant.) During these interviews, we identified errors of omission or commission in the questions: issues which were important but not covered, language which was too difficult or not appropriate for a respondent group, etc.

The questionnaires were thoroughly reviewed in the light of the pretest results and revised accordingly. They were then again reviewed with key members of the staff of the Superintendent of Public Instruction and revised in terms of suggestions made. The final copy was again reviewed by the Office of Public Instruction, and then the questionnaires were printed.

C. DISTRIBUTION, ADMINISTRATION, AND RETURN OF QUESTIONNAIRES

Questionnaires were sent directly to the home or business addresses of community leaders. They were distributed through the schools to the students and educators there. A random sampling scheme was devised for the schools to distribute questionnaires to a random sample of parents in a way that would avoid having any parent receive more than one questionnaire. A small sample of Indian parents and about 150 high school dropouts had the questionnaire administered in a face-to-face context, in order to encourage a high proportion of returns. We believed that it would be important to supply dropouts with the extra motivation of a person-to-person interview, in order to get them to respond to our questionnaire. Further, dropouts are known to be highly mobile geographically, and it was necessary to track them down on an individual basis. Names and last known addresses of dropouts were supplied by high school superintendents.

Community leaders and parents returned their questionnaires directly to ADL. Educators and students sealed their questionnaires in envelopes, to assure confidentiality; the schools returned the questionnaires to ADL. Appendix B shows the sample sizes and return rates. Questionnaires were then key-punched and prepared for analysis by computer.

D. IS/OUGHT ANALYSIS

Computer analysis indicated the distribution of answers for each respondent type on each "is" and each "ought" question. We also computed a mean score for each question, by assigning a numerical score to each answer. This assignment was meaningful, since, as can be seen from the example above, the possible responses to each question ranged along a continuum. Where a question was asked on both the A and B forms of a questionnaire type, the distribution of responses was compared, in order to establish equivalence of questionnaire forms and of the subsamples receiving the two forms of the questionnaire.

In order to show the amount of perceived need for change, we compared the answers for the "is" question and the "ought" question for each issue: we compared the distribution of answers and also the mean answers. We also compared the mean answers for various sub-groups of respondents, to ascertain, for example, whether the present situation was perceived differently by educators in grades K-8 in small and in large school districts. Finally, we compared the distribution of responses to the same question by different respondent groups.

We sent printouts of the answers of their educators and students to schools or districts for whom we had more than 20 usable questionnaires for a given respondent group and questionnaire form.

E. SCALING OF CRITICALNESS OF NEEDS

On all questionnaires except those addressed to the students in grades 4-6, we included rankings of the criticalness of needs. For each questionnaire form, we developed scales of this criticalness, based on the rankings and multiple rank order (MRO) analysis.*

Using the scale values of the anchor items and multiple regression analysis, we merged the two scales for each respondent group (one from the A and one from the B form) to one scale, which included all questions asked of that respondent group. Before doing this, we checked the reliability of scale values between the two forms. In all cases, we found it exceedingly high. The lowest correlation between the two forms was .89 (for the students in grades 9-12). The other correlations ranged up to .98 (for parents and community leaders, educators in grades 9-12, and educators in grades K-8). This procedure established the methodological soundness of the techniques used.

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*Details of the method can be found in:

Friendly, M.L., COMROQ: A Fortran IV Program to Construct Multiple Rank Order Questionnaires Princeton, N.J: Educational Testing Service, RM-68-26, December 1968.

Cochran, W.G., and Cox, G.M., Experimental Design (2nd ed.) New York: Wiley, 1957.

Torgerson, W.S., Theory and Methods of Scaling New York: Wiley, 1958.

Scale values of criticalness of needs were established in the same manner for sub-groups of respondents. Appendix C shows the sub-groups used. Again, the correlations between scale values for the same items in the A and B forms were gratifyingly high. The lowest was .79 for a sub-group of K-8 educators whose numbers taking A and B forms were 12 and 14 respectively. All except two of the other 23 correlations for sub-groups were at least .90.

F. SYNTHESIS OF RESULTS

The central piece of evidence indicating the criticalness of needs was the scale value of need for improvement for an issue, as perceived by members of each respondent group. We first identified the highest quartile of the scale values for each respondent group. For each issue identified thus, we compared the distributions of answers for the "is" and "ought" questions for that group. In those cases where the distributions were statistically significantly different, the issues were retained in the running for being among the most critical.

So far, separate analyses had been conducted for each of the five respondent groups for which we had scale values of criticalness. In order to synthesize these results for overall evaluation, we gave higher weight to issues which were known by direct experience by a respondent group. Thus, on a given issue, where one respondent group was more knowledgeable than another by virtue of its experience, education, technical expertise, or institutional responsibilities, we paid more attention to the scale value supplied by the more knowledgeable group than to that supplied by the less knowledgeable. We also paid more attention, in formulating overall rankings of criticalness of needs, to scale values indicated by respondent groups with direct personal concerns with an issue than to those from groups less personally concerned.

Having identified those issues which most need improvement, we showed the mean values on the "is" and "ought" questions indicated by the respondent groups. Where there were discrepancies among respondent groups, we applied the criteria of knowledgeability and personal concern discussed in the previous paragraph to resolve them. We summarized a picture of the present situation and the desirable situation. This picture, indicated for the most critical issues, will, we believe, help the Office of the Superintendent of Public Instruction and those concerned with schools to see not only the direction in which they need to move on these critical issues, but also how far along the continuum they should move.

A second method we used to identify high priority needs was to compare the mean "is" and "ought" scores for the respondent groups. We considered an issue to have high priority for improvement wherever one or more respondent groups had a mean score for their "is" answers differing by 1.0 or more from their mean score for the "ought" answers. This meant that their "is" answers, on the average, were at least one response category off from their "ought" answers, on the average. Such a difference was always statistically significant and is operationally meaningful.

As another element to be considered in Title III strategy, we looked for sub-groups who indicated higher priorities of need for an issue than did other sub-groups within their respondent groups. This analysis could indicate, for example, cases where high schools in small districts had greater needs than those in large districts. Similarly, it could indicate that guidance counselors considered a need more critical than did other educators. This would imply that guidance counselors are likely to constitute the best spearhead for implementation of changes responding to that need. This analysis is shown in Appendix E.

IV. RESULTS

A. THE MOST URGENT NEEDS FOR IMPROVEMENT

In this section, we shall consider those educational issues which seem to our respondents most in need of improvement in Montana. We will discuss them in approximate order of priority, as indicated by the respondents and by our professional judgment. For each educational area under discussion, we shall describe the present situation and the desired situation as the various groups of respondents see them. Table 1 shows the respondents' ranks of need for improvement of all issues.* Table 2 shows the areas which respondents considered to be in the first quartile of need for improvement, placed by us in approximate ordering of priority by using criteria discussed in Chapter III. It is worth noting that the plurality (7) of these come from the teaching methods area. None come from the areas of provisions for special education and school-community relationships. In this section, we shall discuss the rows of Table 2 in the order shown.

Table 3 indicates the mean scores for the "is" and "ought" questions for each of the high priority items shown in Table 2, grouped under area. We shall discuss these throughout this section. Table 3 also indicates the significance of the differences between the distributions of the scores for "is" and for "ought" questions.

The statistical significance of the differences between the distributions is based on the Chi square statistic. Chi squares significant at or better than the 5% level are indicated with S (significant). Chi squares significant at or better than the 1% level are denoted by H (highly significant). N indicates non-significant differences between the distributions.

Means were computed by assigning to answers the scores indicated in the questionnaire and finding the sum of the weighted answers divided by the number of respondents.**

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* The alphabetical identifications (ID) in this and other tables indicate the issue and guide the reader to Table 1.1 in Annex 1; it shows the question number for that issue in each questionnaire.

** An exception was made for item 13 (raising questions, self expression) in the questionnaires for students in grades 4-6 and grades 7 and 8. Weights for these were reassigned so that they followed in the same direction as weights for the same item for other respondent groups.

TABLE 1

RANKS OF NEEDS FOR IMPROVEMENT

ID	Title	Respondents				
		1.Parents and Community Leaders	Educators		Students	
			2. K-8	3. 9-12	5. 7,8	6. 9-12
	CURRICULUM:					
1 A	Who decides curriculum	14	-	24	-	10
2 B	Elementary, courses in family life	22	-	-	-	-
3 C	Relevance of subjects to future	2	9	1	3	1
4 D	Enjoying school, exciting subjects	-	-	-	6	19
5 E	Relevance of subjects to present	1	2	3	4	4
6 F	Learn about self	7	3	6	8	7
7 G	High school, courses in family life	13	-	17	-	28
8 H	Adequacy of college preparation	6	-	-	-	-
9 I	Required courses	-	22	20	-	26
	TEACHING METHODS:					
10 J	Group or individual teaching	-	10	16	-	17
11 K	Repeat material	-	25	34	-	31
12 L	Examine different points of view	-	12	15	7	6
13 M	Raise questions, self expression	-	7	4	11	8
14 N	Present lessons to different races	25	31	37	-	35
15 O	Use of audio-visual materials	-	16	23	-	9
16 P	Use of educational TV	17	19	31	-	-
17 Q	Subject matter or communication	-	11	14	-	11
18 R	Help for reading problems	3	1	2	2	18
19 S	Who gets special attention	-	17	22	12	30
20 T	Lecture vs. discussion	11	21	10	-	27
21 U	Help from teacher aides	-	14	19	-	-
22 V	Teacher sensitivity training	-	4	8	-	-
23 W	Support, individual instruction	-	6	9	-	-
24 X	Educational field trips	-	18	26	1	2

TABLE 1 (Continued)

ID	Title	Respondents				
		1. Parents and Community Leaders	Educators		Students	
			2. K-8	3. 9-12	5. 7,8	6. 9-12
	SCHOOL ORGANIZATION AND ATMOSPHERE:					
25 Y	Teachers treat rule-breakers	-	29	29	10	15
26 Z	Who makes school rules	20	30	30	-	12
27AA	Treat students of different races	24	28	38	14	36
28AB	Time supervising non-class activity	-	23	33	-	-
29AC	Enforcement of dress rules	-	-	-	-	23
30AD	Supervision of student organizations	-	-	-	-	29
31AE	Students direct studies	-	-	-	-	5
32AF	Time spent record keeping	-	26	36	-	-
33AG	Raising issues at staff meetings	-	32	35	-	-
34AH	Why care about grades	-	-	-	9	16
	COUNSELING AND INFORMATION TO STUDENTS:					
35AI	Range of counseling on colleges	-	-	-	-	24
36AJ	Availability of college counseling	9	-	-	-	22
37AK	Range of vocational-technical education	5	-	7	-	13
38AL	Teachers help students with learning	-	8	5	5	3
39AM	Availability of personal problem counseling	8	5	13	13	25
40AN	Location of job training and opportunities	-	-	12	-	21
41AO	Range of counseling about jobs	-	-	18	-	14
42AP	Availability of job counseling	4	-	11	-	20

TABLE 1 (Continued)

		Respondents				
		1.Parents and Community Leaders	Educators		Students	
ID	Title		2. K-8	3. 9-12	5. 7,8	6. 9-12
	PROVISIONS FOR SPECIAL EDUCATION:					
43AQ	Programs for emotionally disturbed	10	13	21	-	32
44AR	Availability of kindergarten	12	15	27	-	-
45AS	Availability of adult education	19	-	-	-	-
46AT	Programs for physically handicapped	16	24	32	-	33
47AU	Programs for mentally handicapped	15	20	25	-	34
	SCHOOLS AND COMMUNITY					
48AV	Parents, community role in schools	21	27	28	-	-
49AW	School available for community activities	26	-	-	-	-
50AX	Know what goes on in school	18	-	-	-	-
51AY	Comfortable talk to teachers	23	-	-	-	-

TABLE 2

RANKS OF MOST URGENT NEEDS FOR IMPROVEMENT

ID	Issue		Respondent Groups				
		1	2	3	5	6	Total
3C	Relevance of subjects to future	2	(9)	1	3	1	
5E	Relevance of subjects to present	1	2	3	4	4	
18R	Help for reading problems	3	1	2	2	(18)	
38AL	Teachers help students with learning	-	8	5	(5)	3	
6F	Learn about self	7	3	6	(8)	7	
22V	Teacher sensitivity training	-	4	8	-	-	
31AE	Students direct studies	-	-	-	-	5	
8 H	Adequacy of college preparation	6	-	-	-	-	
13M	Raise questions, self expression	-	7	4	(11)	8	
37AK	Range of vocational-technical education	5	-	7	-	(13)	
42AP	Availability of job counseling	4	-	(11)	-	(20)	
39AM	Availability of personal problem counseling	(8)	5	(13)	(13)	(25)	
12L	Examine different points of view	-	(12)	(15)	(7)	6	
15O	Use of audio-visual materials	-	(16)	(23)	-	9	
24X	Educational field trips	-	(18)	(26)	1	2	
23W	Support, individual instruction	-	6	9	-	-	
a.	Number of issues responded to	26	32	38	14	36	146
b.	Number in first quartile	7	8	9	4	9	37
c.	Number in column not in first quartile	1	4	5	5	4	19
d.	Number in column	8	12	14	9	13	56

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1. Parents and community leaders
2. Educators, grades K-8
3. Educators, grades 9-12
5. Students, grades 7 and 8
6. Students, grades 9-12.

Ranks in parentheses are not in the first quartile for the respondent group.

1. Relevance of Subjects to Future Plans of Students

We asked all respondent groups how many of the subjects offered in their school are/should be relevant to students in terms of their future plans. Relevance to future plans can be defined in terms of the way the question was phrased for seventh and eighth graders, as subjects that "will be useful to you later." Tables 1 and 2 show that all groups except the educators in grades K-8 indicated that the need for improvement in this area had first, second, or third priority. K-8 educators indicated it as the ninth priority need, one below the top quartile of the 32 issues judged.

In Table 3, the differences between answers to the "is" and the "ought" questions in this area were highly significant for all respondent groups. The mean answer for respondent groups except students in grades 9-12 indicated that respondents believe that "most" subjects now relate to students' plans for the future. Students in grades 9-12 were most pessimistic about the present situation, indicating that somewhere between "most" and "some" of their school subjects relate to their future plans. The mean answer for the "ought" question indicated that respondents believe that somewhere between "almost all" and "most" subjects should relate to students' plans for the future.

To summarize, respondents indicated a need for movement from most to almost all of the subjects being related to students' future plans. This need for improvement is greater at the high school level than at the elementary school level, judging both by the ranking of urgency for improvement and by the mean scores for "is" and "ought" questions.

2. Relevance of Subjects to Present Needs of Students

We also asked all respondent groups how many of the subjects offered in their school are/should be relevant to the present needs and interests of the students. For the elementary students, the question was stated in terms of how many of their lessons are/should be what they want to learn. This issue was judged between first and fourth in priority by the various respondent groups. Parents and community leaders and educators, both elementary and secondary, showed similar patterns, indicating that in the present situation "most" subjects are related to the students' present needs, but somewhere between "almost all" and "most" should be related. Students, both grades 7-8 and grades 9-12, indicated that between "most" and "almost all" should be. For all groups, differences between distributions of answers to "is" and "ought" questions were highly significant.

TABLE 3

MOST URGENT NEEDS FOR IMPROVEMENT: MEAN SCORES AND STATISTICAL SIGNIFICANCE OF DIFFERENCES BETWEEN DISTRIBUTIONS OF RESPONSES ON "IS" AND "OUGHT" QUESTIONS

		Parents and Community Leaders			Educators						Students								
					Grades K-8			Grades 9-12			Grades 4-6			Grades 7-8			Grades 9-12		
	Title	Is		Ought	Is		Ought	Is		Ought	Is		Ought	Is		Ought	Is		Ought
	CURRICULUM:																		
3 C	Relevance of school subjects to future	2.04	H	1.47	1.74	H	1.43	2.03	H	1.55				1.78	H	1.54	2.54	H	1.73
5 E	Relevance of school subjects to present needs	1.90	H	1.50	1.95	H	1.46	1.95	H	1.42				2.35	H	1.82	2.37	H	1.68
6 F	Learn about self	2.64	H	1.73	2.61	H	1.65	2.81	H	1.75				2.01	H	1.50	2.63	H	1.64
8 H	Adequacy of college preparation	2.14	H	1.29															
	TEACHING METHODS:																		
12 L	Examine different points of view				2.48	H	3.05	2.79	H	3.22				2.56	H	3.03	2.14	H	2.98
13 M	Raise questions about subjects, self expression				2.53	H	3.18	2.80	H	3.34	2.50	H	2.72	2.53	H	2.96	2.52	H	3.35
15 O	Use audio-visual materials				2.45	H	1.85	3.21	H	2.35							3.64	H	2.50
18 R	Help for reading problems	1.65	H	1.03	1.89	H	1.03	2.10	H	1.09	1.53	H	1.33	1.63	H	1.13	2.09	H	1.18
22 V	Teacher sensitivity training				3.07	H	3.69	2.85	H	3.51									
23 W	Administration support, individual instruction vs. curriculum				2.15	N	2.24	2.22	N	2.27									
24 X	Educational field trips				3.75	H	2.75	3.23	H	2.72	3.91	H	2.66	4.51	H	2.65	4.44	H	2.74
	SCHOOL ORGANIZATION AND ATMOSPHERE:																		
31 AE	Students direct studies																2.26	H	1.52
	COUNSELING AND INFORMATION TO STUDENTS:																		
37 AK	Range of vocational-technical education	2.90	H	1.99				2.81	H	2.00							2.89	H	1.99
38 AL	Teachers help students with learning				1.33	N	1.19	1.20	S	1.06	2.11	H	1.97	1.79	H	1.37	1.62	H	1.16
39 AM	Availability of personal problem counseling	2.04	H	1.38	2.71	H	1.41	1.63	H	1.22				2.11	H	1.53	1.95	H	1.53
42 AP	Availability of job counseling	1.85	H	1.26				1.51	H	1.24							1.93	H	1.58

Thus, although most subjects are now related to students' needs, there is a need for more of them to be made so. There is a major discrepancy between parents, community leaders, and teachers on the one hand and students on the other in their perceptions of the present situation; the former see more present relevance than do the latter.

3. Help for Students with Reading Problems

All respondents were asked whether special help for students with reading problems is/ought to be available:

Regularly (1)
Occasionally (2)
Rarely (3)
Not at all (4).

All groups except the high school students assigned to this issue a criticalness ranking between one and three. Answers typically indicated that such help is available "occasionally" and should be available "regularly." Both students' and teachers' responses indicated that it is available more commonly in elementary than in high school. Table 3 shows that in all five respondent groups, the differences between "is" and "ought" distributions are highly statistically significant.

In summary, all groups felt that special help for students with reading problems should be regularly available. We cannot be certain why the high school students, although their "is" and "ought" means were similar to those of the other groups, rank the priority of need for this area much lower than do the other groups. Possibly it is because they believe the number needing help for reading problems is comparatively low in high school, although the amount of help needed per student with reading problems is as great as that in elementary school.

4. Teachers Helping Students with Learning

All responding groups were asked whether, if the student does not understand the assigned lesson, he or she can/should be able to come to a teacher for help:

Almost always (1)
Usually (2)
Sometimes (3)
Rarely (4)
Almost never (5)

The difference between "is" and "ought" distributions was not significant for the educators, grades K-8, but the differences were significant or highly significant for the educators, 9-12, the elementary students, and high school students. Teachers were more optimistic than students about the opportunity: their mean "is" answers were closer to "almost always" than were those for students. Indeed, for grades 4-6 students, the typical answer was 2.11, close to "usually." Both elementary and secondary teachers recognized a gap between their own behavior and the ideal behavior, with the difference being particularly significant for secondary teachers. All groups queried (except grades 4-6 students) indicated that they perceive the need for an opportunity to be available "almost always" for help for a student who does not understand the assigned lesson.

5. Students Learning About Themselves

All groups except the fourth through sixth graders were asked about opportunities for students to understand themselves. This was defined in terms of courses or units on how students feel about themselves and other people, and how they get along with others. We indicated that these units can be included in courses such as Family Living, Sociology, Psychology, or Social Studies. The five respondent groups who ranked the priority of needs for improvement for this area assigned it priorities ranging between three and eight. Elementary school teachers indicated that it has third highest priority for improvement.

Four of the groups indicated that "very few" such courses are available; one, students in grades 7 and 8, indicated that "some" such courses are available. All groups indicated that between "some" and "many" such courses should be available. The differences between "is" and "ought" responses were highly significant for all five respondent types. In summary, respondents agree that there is a need for some classes or courses which provide opportunities for students to learn about themselves.

6. Training in Treating Students as Individuals

Both groups of educators were asked how much training and experience they have/should have in order to deal with their students as individuals with diverse personalities, abilities, and interests, using inquiry approaches, child-centered methods, or similar methods. The elementary teachers indicated that this is the need with fourth highest priority; the high school teachers assigned this need eighth highest priority. For both groups the differences between "is" and "ought" responses were highly statistically significant. Both groups indicated that they had "some" training or experience but felt they should have a "good deal of" training or experience.

7. Students Directing Their Own Studies

High school students were asked how much opportunity they have/should have to develop skills in organizing and directing their own studies. They indicated that this was the fifth highest priority need. The difference between the situation as they perceive it and as they desire is highly statistically significant. The typical "ought" answer was that they should have between "many" and "some" opportunities for developing skills for directing their own studies.

8. Adequacy of College Preparation

We asked parents and community leaders, including university and college professors, how adequate the college preparation of their high school is/should be. They gave the need for improvement in this area sixth highest priority. The difference between "is" and "ought" answers was highly statistically significant. Typically, parents and community leaders felt that preparation is "good" but should be between "good" and "excellent."

We assumed that parents and community leaders were in a better position of knowledgeability to assess the extent of this need than were the other respondent groups. It is possible that if we had asked high school students and educators (especially guidance counselors) to assess this need, we might have obtained different results.

9. Encouraging Student Independence Through Ideas and Questions

Students were asked how much of the time teachers let them tell their ideas (grades 4-6, 7-8) or encouraged them to raise questions about class material (grades 9-12). Educators were asked how often they encouraged students to examine and analyze what the teachers were teaching. In all cases, the mean "is" responses were highly significantly different from the mean "ought" responses. Students and teachers evaluated the present situation as students being encouraged between "sometimes" and "usually" to exercise critical thinking about the classroom material. The respondent groups indicated typically that students should "usually" be encouraged to do this. The most extreme positions, a third of the way from "usually" to "almost always" as seen in Table 3, were given by the high school educators and students. Thus, all respondent groups queried believe there is a need for more encouragement of questioning and examination by the students of the material which teachers present to them and a need for expression of their own ideas. The four respondent groups queried gave priorities between four and 11 to the need for improvement in this area; high school educators gave the area priority four, and grades 7-8 students gave it priority 11.

10. Range of Vocational-Technical Education

Parents and community leaders, and high school students and educators were asked for how many different occupations vocational-technical education (e.g., auto mechanic, beautician, etc.) is/ought to be available in their high school. Parents and community leaders gave this issue the fifth priority, high school educators seventh, and high school students 13th. About a quarter of each group indicated that no vocational-technical education is available in their high school. The differences between "is" and "ought" responses were highly significant for all three groups. The groups also agreed very closely in indicating that, typically, courses for one to three occupations were available but that courses for four to seven occupations should be available. Thus, there is a clear need for greater variety of occupational preparation for high school students.

11. Availability of Counseling on Job and Training Opportunities

The same three respondent types were asked whether counseling with regard to job and training opportunities is/ should be available at their high school:

On a scheduled basis and whenever any student requests it (1)
Whenever any student requests it (2)
Only for students selected or recommended by school authorities (3)
Not at all (4).

Parents and community leaders gave this area the fourth highest priority of need for improvement, with high school educators and students giving it the 11th and 20th priorities, respectively. Differences between "is" and "ought" answers were highly statistically significant for all three groups. The mean "is" responses (shown in Table 3) for the three groups, in the order mentioned above, were 1.85, 1.51, and 1.93, respectively, indicating that such counseling is typically available whenever a student requests it. The mean "ought" responses (1.26, 1.24, and 1.58) indicate that the parents and community leaders and teachers believe that counseling should be available "on a scheduled basis and whenever any student requests it"; students in high school believe that it should be available between "on a scheduled basis and whenever any student requests it" and "whenever any student requests it."

12. Availability of Counseling for Personal Problems

All five respondent groups who completed the ranking questions were asked the basis on which counseling with regard to personal problems is/should be available in their school. The issue was ranked in fifth priority by educators in grades K-8 and in non-top quartile priorities (up to 25th out of 36 issues for the high school students) by the other four groups. Differences between "is" and "ought" responses were highly statistically significant for all groups. There was a considerable range of opinion about the present situation. Parents and community leaders believed that counseling is available only when a student requests it. The same is true for both student groups. Educators in grades K-8 believe that it is available only for students selected or recommended by school authorities or parents. Educators in grades 9-12 estimated that availability lies between the categories "only when a student requests it" and "on a scheduled basis for all students and whenever a student requests it," but closer to the former.

Turning to the amount of personal counseling that respondents believe should be available, the mean "ought" scores for parents and community leaders and educators were between 1.22 and 1.38, indicating agreement, typically, with the statement that such counseling should be available "on a scheduled basis for all students and whenever a student requests it." The "ought" mean for both groups of students was 1.53, indicating the typical answer between that just quoted and the answer "only when a student requests it," with slightly more agreement with the latter.

13. Examination from Different Points of View

We asked students and educators how often teachers do/should encourage students to examine from various points of view what they have learned. This area was defined as having the sixth highest priority for improvement by the students in grades 9-12, seventh by students in grades 7-8, 12th by educators in grades 7-8, and 15th by educators in grades 9-12. In all cases, the distributions of "is" answers differed highly significantly from the distributions of "ought" answers. Educators and students in grades 7-8 agreed that the present situation is between teachers "sometimes" and "often" encouraging their students to examaine what they are taught from various points of view. Further, they agreed that this should "often" be true.

High school students and educators did not agree so closely. The students perceived a situation in which this is "sometimes" done; the teachers' perception was that it is "often" done. Both agree that it should be done "often," with the typical teachers' response being closer to "almost always" than that of the students.

All groups are agreed that teachers should "often" encourage students to examine critically the material presented to them. The need is particularly great in high schools.

14. Use of Audio-Visual Materials

Both educator groups and students in grades 9-12 were asked about frequency of use of audio-visual materials (films, film strips, recordings, tapes, etc.). The high school students gave this area the ninth priority, the elementary educators 16th out of 32, and the high school educators 23rd out of 38. High school educators estimated the present frequency at around "two or three times a month," while their students typically were more likely to estimate it at "two or three times a semester." Both groups indicated that the frequency ought to be between "two or three times a week" and "two or three times a month." The elementary educators' response indicated present use of audio-visual materials at about halfway between "two or three times a week" and "two or three times a month." They indicated that the desirable situation would be close to "two or three times a week." For each of the three groups, the difference between "is" and "ought" responses were highly statistically significant. Thus, all three groups queried indicated a need for more frequent use of audio-visual materials.

15. Educational Field Trips

Students and educators were asked how frequently students are/should be taken on educational field trips. In all cases, the "is" answers differed highly statistically significantly from the "ought" answers. The pattern of rankings of criticalness was unusual. Elementary and high school students indicated that this issue posed the first and second priority, respectively, of need for improvement. However, elementary educators gave the issue priority 18 out of 32, and high school educators gave it priority 26 out of 38. We have chosen to place more credence in the evaluation of the educators than that of the students; the former are in a better position to evaluate the educational effects of field trips.

There was very close agreement between educators in grades K-8 and students in grades 4-6 on the present and desirable frequency of field trips. The mean scores indicate that both groups feel that field trips take place "once or twice a year" and should take place somewhat more frequently than "once a semester" and less often than "once a month." By contrast, most seventh-and eighth-grade students indicate that they never take a field trip; they think they should take one "once a semester" or "once a month." Educators in grades 9-12 estimate that they take field trips slightly more often than "once a semester." Less than 10% of them indicate that they never go on educational field trips with their students. By contrast, more than half of the students in grades 9-12 responding estimated that they never go on field trips. High school students and educators agree, however, that a desirable frequency of field trips would be between once a semester and once a month, closer to the former.

16. Administrative Support for Individualized Instruction

We asked elementary and secondary school teachers whether, in their school, the administration encourages/should encourage teachers to:

> Concentrate on keeping up with the prescribed curriculum, even if this means they cannot take time to help individual students (1)
> Maintain a balance between keeping up with the prescribed curriculum and helping individual students (2)
> Concentrate on helping individual students, even if this means dropping behind the prescribed curriculum (3).

Elementary teachers gave this need sixth and secondary teachers ninth priority. However, in both cases, the answers to "is" and "ought" questions were so similar that the differences between them were not significant. In both groups, about three-quarters of the teachers gave answer 2, with slightly more teachers giving answer 3 than answer 1, on both "is" and "ought" questions. Thus, the direction of need for improvement is not clear.

B. OTHER AREAS IN NEED OF IMPROVEMENT

In addition to using the scale values of need for improvement, we looked at the differences between mean "is" and mean "ought" responses for the various respondent groups.

Table 4 shows these differences for all issues. It was analyzed in order to form Table 5, which shows those issues where the difference between the means was equal to or greater than 1.0, for at least one respondent group, but which were not among those issues identified in Table 2 in the top quartile of the scale values for need for improvement. Twelve additional issues were identified in this manner. These are:

who decides curriculum

courses in family life in elementary school

enjoying school, exciting school subjects

courses in family life in high schools

group or individual teaching

how lessons are presented to different races

use of educational television

help from teacher aides

the way teachers treat students who break rules

who makes school rules

programs for the emotionally disturbed

availability of kindergarten.

We shall discuss each of these in detail below.

1. Who Decides Curriculum?

Parents and community leaders were asked who decides/should decide what is taught in the schools in their community:

Parents and other adults in the community (1)
Parents and other adults have some say, but the school board, school administrators, and teacher make final decisions (2)
The school board, school administrators, and teachers (3).

More than four-fifths indicated that the present situation is described by answer 3, (mean score being 2.8) but three-quarters believed the situation should be as indicated in answer 2 (giving a mean answer of 2.1). Less than 1% believed situation 1 was either true now or desirable.

Educators and students in grades 9-12 were asked the same question with a different set of answers:

TABLE 4

DIFFERENCES BETWEEN MEAN "IS" AND "OUGHT" SCORES FOR RESPONDENTS WHO ANSWERED BOTH "IS" AND "OUGHT" QUESTIONS

		Parents and Community Leaders		Educators				Students					
				Grades K-8		Grades 9-12		Grades 4-6		Grades 7-8		Grades 9-12	
	Title	A	B	A	B	A	B	A	B	A	B	A	B
	CURRICULUM:												
1 A	Who decides curriculum	.643 H	.611 H			1.086 H						1.680 H	
2 B	Elementary, courses in family life		1.107 H										
*3 C	Relevance of school subjects to future	.572 H		.308 H			.473 H			.254 H		.809 H	
4 D	Enjoying school, exciting school subjects							.184 H	.209 H	.432 H	.371 H	1.283 H	1.261 H
*5 E	Relevance of school subjects to present needs		.412 H	.436 H	.535 H	.521 H				.598 H	.460 H		.689 H
*6 F	Learn about self	.914 H		.878 H	1.028 H	1.014 H	1.099 H			.445 H	.562 H	.985 H	
7 G	High school, courses in family life	1.039 H	1.148 H			1.382 H	1.517 H					1.439 H	1.366 H
*8 H	Adequacy of college preparation		.847 H										
9 I	Required courses			-.493 H	-.454 H		-.368 H					-.487 H	
	TEACHING METHODS:												
10 J	Group or individual teaching			-.380 H		-.414 H							-1.116 H
11 K	Repeat material			.186 N	.151 N		.198 S					.322 H	
*12 L	Examine different points of view				-.527 H	-.427 H					-.466 H		-.842 H
*13 M	Raise questions about subjects, self expression				-.607 H		-.483 H		-.230 H		-.437 H		-.830 H
14 N	Present lessons to different races	-.405 H			-.385 H	-.285 H							-1.115 H
*15 O	Use of audio-visual materials			.556 H		.763 H						1.141 H	
16 P	Use of educational TV	2.365 H		2.666 H	3.043 H		2.810 H						
17 Q	Teacher concern, subject matter or communication			.047 N		.024 N							-.444 H
*18 R	Help for reading problems	.629 H		.914 H	.807 H		1.058 H	.213 H	.221 H	.48[illegible] H	.498 H	.916 H	
19 S	Who gets special attention				-.408 N		-.358 S	-.082 H		-.4[illegible] H		-.841 H	
20 T	Lecture vs. discussion	.475 H	.543 H	.227 H	.241 H	.242 S	.240 S					.458	.486 H
21 U	Help from teacher aides			-2.188 H		-2.471 H							
22 V	Teacher sensitivity training				-.612 N		-.653 H						
23 W	Administration support, individual instruction vs. curriculum			-.101 N		-.058 N							
* 24 X	Educational field trips			1.018 H		.585 N			1.248 H		1.862 H	1.696 H	

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*Issues identified as high priority in Table 2.

TABLE 4 (Continued)

				Educators				Students					
		Parents and Community Leaders		Grades K-8		Grades 9-12		Grades 4-6		Grades 7-8		Grades 9-12	
	Title	A	B	A	B	A	B	A	B	A	B	A	B
	SCHOOL ORGANIZATION AND ATMOSPHERE:												
25 Y	Teachers treat rule-breakers			-.470H		-.547H			-.215H		-.531H		-1.036H
26 Z	Who makes school rules	1.559H			1.744H	1.325H							2.456N
27 AA	Treat students of different races		.741H	.648H			.603H			.562H		.978H	
28 AB	Time spent supervising non-class activity				-.547H		-.658H						
29 AC	Enforcement of dress rules											-.182H	-.220H
30 AD	Teacher supervision of student organizations												-.439H
* 31 AE	Students direct studies											.746H	
32 AF	Time spent record keeping			-.581H	-.617H		-.404H						
33 AG	Raising issues at staff meetings				.624H	.470H							
34 AH	Why care about grades							-.057H		-.181H			-.334H
	COUNSELING AND INFORMATION TO STUDENTS:												
35 AI	Range of counseling on colleges											-.248H	
36 AJ	Availability of college counseling	.384 H											.391H
* 37 AK	Range of vocational-technical education	.926 H				.764H							.941H
* 38 AL	Teachers help students with learning				.165 H		.133 S	.140H		.413H		.451H	
* 39 AM	Availability of personal problem counseling	.627H	.763H	1.458H	1.158H	.374H	.453H				.581H	.464H	.376H
40 AN	Location of job training and opportunities						-.300H						-.089H
41 AO	Range of counseling about jobs					.658H						.766H	
* 42 AP	Availability of job counseling		.591H				.257H						.363H

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*Issues identified as high priority in Table 2.

TABLE 4 (Continued)

				Educators				Students					
		Parents and Community Leaders		Grades K-8		Grades 9-12		Grades 4-6		Grades 7-8		Grades 9-12	
	Title	A	B	A	B	A	B	A	B	A	B	A	B
	PROVISIONS FOR SPECIAL EDUCATION:												
43 AQ	Programs for emotionally disturbed	.929H		1.000H		.708H							.842H
44 AR	Availability of kindergarten		1.566H		2.064H		2.232H						
45 AS	Availability of adult education		.911H										
46 AT	Programs for physically handicapped		.685H	.873H		.670H						.811H	
47 AU	Programs for mentally handicapped	.640H	.585H	.743H	.860H		.956H					.658H	.708H
	SCHOOLS AND COMMUNITY												
48 AV	Parents, community role in schools		.889H		.891H		.867H						
49 AW	School facility available for community activities	.382H	.467H										
50 AX	Know what goes on in school	-.772H											
51 AY	Comfortable talk to teachers		.317H										

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*Issues identified as high priority in Table 2.

TABLE 5

ISSUES WITH MAJOR DIFFERENCES BETWEEN MEAN "IS" AND "OUGHT" SCORES NOT IN THE TOP QUARTILE OF ISSUES

		Community Leaders			Educators						Students			Students		
					K-8			9-12			7,8			9-12		
ID	Title	I	O	R	I	O	R	I	O	R	I	O	R	I	O	R
	CURRICULUM															
1 A	Who decides curriculum	2.8	2.1	14				3.9	2.8	24				4.0	2.4	10
2 B	Elementary, courses in family life	3.5	2.4	22												
4 D	Enjoying school, exciting school subjects										2.2	1.8	6	2.9	1.6	19
7 G	High school, courses in family life	3.2	2.1	13				3.6	2.1	17				3.4	2.0	28
	TEACHING METHODS															
10 J	Group or individual teaching				2.8	3.2	10	2.5	2.9	16				1.9	3.0	17
14 N	Present lessons to different races	2.9	4.0	25	3.4	4.1	31	3.1	4.0	37				2.5	3.8	35
16 P	Educational TV	4.9	2.6	17	5.2	2.3	19	5.6	2.7	31						
21 U	Help from teacher aides				1.7	3.9	14	1.2	3.7	19						
	SCHOOL ORGANIZATION AND ATMOSPHERE															
25 Y	Teachers treat rule-breakers				3.3	3.8	29	3.3	3.8	29	3.0	3.5	10	2.6	3.6	15
26 Z	Who makes school rules	5.3	3.7	20	5.5	3.8	30	4.6	3.3	30				5.0	2.6	12
	PROVISIONS FOR SPECIAL EDUCATION															
43 AQ	Programs for emotionally disturbed	2.7	1.7	10	2.7	1.6	13	2.7	1.8	21				2.7	1.9	32
44 AR	Availability of kindergarten	3.1	1.6	12	3.6	1.6	15	3.7	1.5	27						

I = Mean "is" score.
O = Mean "ought" score.
R = Rank of scale value of need for improvement.

A committee of students, with some advice from teachers or administrators (1)
A committee of students, teachers and administrators (2)
Teachers and administrators decide, but sometimes they ask the opinions of some students (3)
Teachers and administrators decide, and very rarely they ask the opinions of some students (4)
Teachers and administrators decide, and they never ask the opinions of the students (5).

Almost half the students (mean at 4.0) and two-fifths of the educators (mean at 3.9) described the present situation with answer 5. However, almost half the students gave answer 2 for the desirable situation, with a third giving answer 3 (making a mean answer of 2.4). Two-thirds of the educators indicated that answer 3 is desirable, and almost a quarter desired a situation described by answer 2. Their mean "ought" answer was 2.8. Thus, there is consensus that students exercise practically no decision-making power over curriculum now, and that the board, educators, and administrators have authority, shared in some cases with the community, over curriculum decisions. Parents feel that the community should have more decision-making powers in this regard. High school students and teachers both feel that students should be allowed to participate more fully in curriculum decisions. The extent of the need is indicated in the first rows of Tables 4 and 5.

2. Courses in Family Life in Elementary Schools

Parents and community leaders were asked whether courses in sex education and family life in their elementary school(s) are or should be:

Required for all (1)
Available for anyone who wants to take them (2)
Available for students with the permission of their parents (3)
Not available (4).

The vast majority of parents and community leaders indicated that they believed that courses in sex education and family life are not available at all in their elementary schools. (The mean was at 3.5.) Only about one-quarter of them believe that such courses should not be available. (The mean "ought" answer was 2.4.) This response indicates the desirability of availability of sex education for elementary students.

3. Enjoying School, Exciting School Subjects

Students in grades 4-6, and 7 and 8 were asked whether they do/should enjoy going to school:

Almost always (1)
Usually (2)
Some of the time (3)
Usually not (4)
Always not (5)

Students in grades 9-12 were asked whether the subjects they are taking or have taken in high school are/should be:

Almost always exciting and interesting (1)
Usually exciting and interesting but occasionally dull and boring (2)
About equally exciting and interesting and dull and boring (3)
Generally dull and boring but occasionally exciting and interesting (4)
Almost always dull and boring (5).

Slightly more than two-fifths of the 4-6th graders and 7th and 8th graders gave answer 3, with about a quarter giving answer 2, when speaking of the present situation. The mean answer for grades 4-6 was 2.0. For grades 7 and 8, it was 2.2. However, when describing the desirable situation, more than one-third gave answer 3, a third gave answer 2, and a quarter gave answer 1, providing a mean answer at 1.8. Thus, there was a small but statistically significant tendency for the elementary school students to indicate the need for a more enjoyable curriculum.

The discrepancy between "is" and "ought" answers was even greater for the high school students. Almost two-fifths characterized the present situation with answer 3, a third with answer 4, and a fifth with answer 2, generating a mean at 2.9. When describing the desirable situation, however, the mean was 1.6. Almost half opted for answer 2, three-tenths for answer 1, and a fifth settled for the present situation, answer 3. The high school students felt even more keenly than elementary students the need for a more exciting curriculum.

4. Courses in Family Life in High School

About two-thirds of the community leaders, the educators in grades 9-12, and the students in grades 9-12 indicated that courses in sex education and family life are not available in their high schools. About one in ten students, educators, and parents and community leaders believe they should not be available. Among those who think they should be available, for all three respondent groups, a typical response is that they should be available for anyone who wishes to take them.

The issue of sex education in schools is clearly one in which there is lack of agreement within each respondent group. We believe that those who felt that there is no need for improvement in this area gave the issue such low rankings that they brought down considerably, out of the top quartile range, the scale values for this issue for their entire respondent group.

5. Teaching Individuals Rather Than Groups

Both groups of educators and the high school students were asked how often teachers do/should present course material in different ways to meet the needs of different students:

Almost never (1)
Sometimes (2)
Most of the time (3)
Almost always (4).

Almost half the K-8 educators feel they now do this "most of the time", with another quarter indicating "almost always." The mean "is" answer was 2.8. Almost half the 9-12 educators indicated "sometimes," a third "most of the time," and one-fifth "amost always." Their mean was 2.5. One-half the high school students indicated "sometimes," almost a quarter "most of the time," but almost a fifth indicated that teachers "almost never" present course material differently for different students, generating a mean of 1.9.

Turning to the "ought" answers, one-half of the K-8 teachers answered "almost always" and two-fifths "most of the time," so their mean answer was at 3.2. Half the 9-12 teachers answered "most of the time," a third "almost always," and a sixth "sometimes." Their "ought" mean was at 2.9. But half the 9-12 students answered "most of the time," and a third "almost always." (Mean at 3.0.) Thus, there is agreement between students and teachers that teaching needs to become more individualized, with students believing the need is greater than teachers indicate. The disagreement is not about what ought to be, but about what is.

6. How Lessons are Presented to Different Races

Parents and community leaders, both educator groups, and students in grades 9-12 were asked how often teachers do/should adjust their teaching methods by using terms that students of different races are familiar with and can understand:

Almost never (1)
Seldom (2)
Sometimes (3)
Usually (4)
Almost always (5)

Respondents were allowed to indicate that students in their classes were all of the same race. As with the previous issue, all groups agreed that there is a need for change towards individualized teaching. The most extreme perception of the need was given by high school students, half of whom answered "almost always" for the desired situation (mean score of 2.5), but fewer than one-fifth of whom gave that answer for the present situation, giving a mean "ought" answer of 3.8.

7. Educational Television In the School

About three-quarters of the parents, community leaders, and educators indicated that educational television is never used in their school. The typical answer to the question of how often it should be used was between "weekly" and "once a month." Thus, many more respondents see a need for frequent use of educational television in the schools than see this need being fulfilled now.

8. Help From Teacher Aides

About half of the elementary educators and about four-fifths of the secondary school educators indicated that there are no teacher aides in their schools. Where there were aides, there was typically one aide for five or more teachers. Only one-tenth of the educators thought that there should be no teacher aides. The responses for the desirable ratio of teacher aides to teachers were spread fairly evenly among the various categories (from a ratio of 1 to 4 to a ratio of 1 to 1); a typical answer works out to about one aide for every three teachers.

9. The Way Teachers Treat Students Who Break Rules

Both educator and student groups were asked whether students who break rules are/should be treated fairly by teachers:

Almost never (1)
Sometimes (2)
Most of the time (3)
Almost always (4)

Educators and elementary students described the present situation with answers close to 3, on the average. High school students gave a mean answer of 2.6. The mean "ought" answer varied from 3.5 (students, grades 7 and 8) to 3.8 (both educator groups). Thus, all groups, but especially the high school students, see a need for change so that teachers increase the frequency of fair treatment to students who break rules.

10. Who Makes School Rules for Student Behavior and Dress?

Parents and community leaders, educators, and students were asked who does/should make rules for student behavior and dress in their school(s). The following answeres were supplied:

A student committee (1)
A student committee, with advice from teachers or administrators (2)
A student committee proposes rules, but teachers or administrators decide (3)
Administrators and/or teachers with some advice from a student committee (4)
Administrators and/or teachers, and sometimes they ask the opinion of students (5)
Administrators and/or teachers, and they rarely ask the opinion of students (6)
Administrators and/or teachers, without asking opinions of students (7).

Two-fifths to more than a half of each respondent group indicated that rules are now made by administrators and/or teachers and that they rarely or never ask the opinions of students. Ten percent or fewer of these respondents feel that this should be the situation. There is considerable difference of opinion about how much power students should have in deciding school rules. The typical student response is answer 2, "a student committee, with advice from teachers or administrators." Both educator groups typically give answer 3, "a student committee proposes rules, but teachers or administrators decide," or 4, "administrators and/or teachers with some advice from a student committee." The K-8 educators lean toward answer 4, and the 9-12 educators lean toward answer 3. Parents and community leaders are the most traditional, typically indicating the desirability of answer 4.

The answers correspond to those obtained for Life magazine in a nationwide poll by Louis Harris and Associates, Inc.* "Two thousand, five hundred interviews among students, parents, teachers and principals of a hundred schools in representative big cities, suburbs, small towns and rural areas" showed that 58% of students, 35% of teachers, and 20% of parents want more student participation in policy making. Similarly, 54% of students, 30% of teachers, and 25% of parents considered student participation in policy making very important. Sixty-six percent of students, 40% of teachers, and 24% of parents believe students should have more say in making rules. Similarly, 48% of students, 37% of teachers, and 28% of parents believe students should have more say in determining the discipline of students."

11. Programs for the Emotionally Disturbed

Parents and community leaders, educators, and high school students were asked how much of a program for the emotionally disturbed is/should be available in their school(s):

A complete program (1)
A partial program (2)
No program (3).

An answer was provided for respondents to indicate that there are no emotionally disturbed children in their school(s). Four-fifths of those who indicated otherwise, in all groups, marked that no program for emotionally disturbed students is available in their schools. (The mean "is" answer was 2.7.) However, only two-fifths of the high school students and one-fifth or fewer of the adults indicated they felt that no program should be available; thus the mean "ought" score varied between 1.6 (educators, K-8) and 1.9 (students, 9-12). There is consensus, then, that partial programs need to be instituted.

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* McComb, Leonard, "What People Think About Their High Schools," Life, Volume 66, No. 19, May 16, 1969, pages 22-33.

12. Availability of Kindergarten in the Community

The adult respondents were asked whether kindergarten is/should be available in their community:

For every child (1)
Only for those children whose parents can afford it (2)
Only for those children from low income families (3)
Only for children whose parents can afford it and for children from low-income families, but not for children from average income families (4)
To all kinds of children but the facilities are insufficient and the children cannot be served (5)
Not at all (6).

For all three groups, the differences between "is" and "ought" answers were major. More than half the educators and almost two-fifths of the parents and community leaders indicated that kindergartens are not available in their communities. However, more than half of the members of these groups thought that kindergarten should be available to every child in the community.

C. ISSUES WITH LOW PRIORITY NEEDS

We have indicated needs identified in two ways which appear to have high priority for improvement. It is also worthwhile to list and comment on the needs which do not seem to have high priority. These are listed in Table 6. The low priority items are mainly in the areas of school organization and atmosphere, provisions for special education, and school-community relationships.

By contrast, only one out of nine issues in the area of curriculum is shown in Table 6; only four out of fifteen in the area of teaching methods is shown there as being of low priority among needs for improvement.

We were surprised that parents and community leaders indicated low priority of need for improvement for all four issues in the area of schools and community. We thought that this might be related to a lack of knowledge about this area. In fact, we found that the higher the proportion of parents and community leaders who indicated that they did not know the present situation about an issue, the lower the priority they gave it. The correlation coefficient between the two variables was -0.262, significant at the .05 level. However, the percents of parents and community leaders who indicated they did not know the current situation for these four issues ranged from 2% to 12%, low or medium compared to the parents' and community leaders' "Don't Know" percents for other issues. Thus, we conclude that parents' and community leaders' low priorities for these issues did not arise from their lack of knowledge about the current situation with respect to them.

D. "IS" AND "OUGHT" RESPONSES OF HIGH SCHOOL DROPOUTS

Questionnaires were administered to about 150 high school dropouts in various parts of Montana. We compared the responses of these dropouts with those of the students in grades 9-12. In this section, we will discuss questions where either the "is" or "ought" mean of the dropouts was at least .05 points different from that of the grades 9-12 students, under the five area headings used previously. The data under discussion are in Tables 7 and 8.

1. Curriculum

High school dropouts judged the present curriculum as "generally boring," an assessment that is considerably more pessimistic than the "equally exciting, equally boring" answer typical of students.

Dropouts typically considered that "some" subjects relate to their needs, while the typical student's answer was between "some" and "most."

Dropouts indicated typically that courses in family life were available to students "with permission;" students gave a mean answer between the foregoing and "not available."

TABLE 6

ISSUES WITH LOW PRIORITY NEEDS FOR IMPROVEMENT

ID	TITLE
	CURRICULUM:
9 I	Required courses
	TEACHING METHODS:
11 K	Repeat material
17 Q	Subject matter or communication
19 S	Who gets special attention
20 T	Lecture vs. discussion
	SCHOOL ORGANIZATION AND ATMOSPHERE:
27 AA	Treat students of different races
28 AB	Time supervising non-class activity
29 AC	Enforcement of dress rules
30 AD	Supervision of student organizations
32 AF	Time spent record keeping
33 AG	Raising issues at staff meetings
34 AH	Why care about grades
	COUNSELING AND INFORMATION TO STUDENTS:
35 AI	Range of counseling on colleges
36 AJ	Availability of college counseling
40 AN	Location of job training and opportunities
41 AO	Range of counseling about jobs
	PROVISIONS FOR SPECIAL EDUCATION:
45 AS	Availability of adult education
46 AT	Programs for physically handicapped
47 AU	Programs for mentally handicapped
	SCHOOL AND COMMUNITY:
48 AV	Parents, community role in schools
49 AW	School available for community activities
50 AX	Know what goes on in school
51 AY	Comfortable talk to teachers

TABLE 7

ISSUES ON WHICH "IS" MEAN OF HIGH SCHOOL DROPOUTS WAS 0.5 OR MORE DIFFERENT FROM "IS" MEAN OF GRADE 9-12 STUDENTS

ID	Title	Means	
		Dropouts	Students
D	Enjoying school, exciting subjects	3.8	2.9
E	Relevance of subjects to present	2.9	2.4
G	High school, courses in family life	2.9	3.4
O	Use of audio-visual materials	2.6	3.6
Q	Subject matter or communication	1.2	1.8
S	Who gets special attention	1.4	2.7
Z	Who makes school rules	5.9	4.9
AL	Teachers help students with learning	2.2	1.6
AM	Availability of personal problem counseling	2.6	1.9
AN	Location of job training and opportunities	3.2	2.6
AO	Range of counseling about jobs	3.0	1.9
AP	Availability of job counseling	2.8	1.9

TABLE 8

ISSUES ON WHICH "OUGHT" MEAN OF HIGH SCHOOL DROPOUTS WAS 0.5 OR MORE DIFFERENT FROM "OUGHT" MEAN OF GRADE 9-12 STUDENTS

ID	Title	Means Dropouts	 Students
J	Group or individual teaching	3.5	3.0
K	Repeat material	2.7	1.9
O	Use of audio-visual materials	1.6	2.5
Z	Who makes school rules	3.2	2.5
AK	Range of vocational-technical education	1.3	2.0
AQ	Programs for emotionally disturbed	2.4	1.8

2. Teaching Methods

The dropouts' mean answer indicated that they believe that teachers should teach material to help those whose needs differ, between "most of the time" and "almost always." Students typically answered "most of the time."

Dropouts wish that teachers would repeat material closer to "seldom" than "sometimes." Students think it should be repeated "sometimes."

Dropouts estimated that audio-visual materials are used between "two or three times a week" and "two or three times a month." The typical answer for students was between the latter and "two or three times a semester." The "ought" answers to this question of the two groups were related similarly. Dropouts believe that audio-visual materials should be used between "daily" and "two or three times a week." Students believe audio-visual materials should be used between the latter frequency and "two or three times a month."

Dropouts perceive teachers as being primarily interested in subject matter. Students see them as being equally concerned with subject matter and communicating with students.

As dropouts see it, the smart student gets special attention from teachers. Students believe teachers pay special attention to students with difficulties.

3. School Organization and Atmosphere

Dropouts believe that school rules for student dress and behavior are now made by teachers and administrators and that they rarely ask the opinion of students. Students believe that they sometimes ask the opinion of students. However, dropouts would be satisfied, according to their "ought" answer, with less of a student role in making rules than would students.

4. Counseling and Information to Students

Dropouts believe that there should be eight or more occupations for which vocational-technical education is offered in their school. Students would be satisfied with four to seven such vocational courses.

The typical dropout answer to the question about present availability of counseling for personal problems is closer to "available for students selected by the school administration" than to "available to any student who requests it." The typical student answer is the latter.

Dropouts feel that when they did not understand a lesson, they could ask a teacher for help somewhat less frequently than "usually." Students feel that they can ask for help between "usually" and "almost always."

Dropouts are much more likely than students to indicate that information on job opportunities is not available in their schools.

Dropouts similarly are much more likely than students to indicate that there is no job counseling available in their school. The trend is seen on the questions related to issues AO and AP in Table 7.

5. Provisions for Special Education

With regard to the kind of program there should be for emotionally disturbed students in high school, dropouts typically answered between "no program" and a "partial program." Students typically answered the latter.

6. Summary

Our analysis presents the following picture of the dropout, as compared to the student in high school:

In many respects, the dropouts believe that their needs are being met less well than do the other students. To the dropout, curriculum seems less exciting, fewer subjects relate to their needs, teachers seem less interested in them as people, and the administration is less likely to ask their opinions about school rules. Further, dropouts are much more concerned than other students about school preparation for the world of work. They think that more vocational-technical courses should be available. They are less optimistic than other students about the availability of help from teachers when they did not understand a lesson, about obtaining personal counseling, and about the availability of information or counseling about jobs. We do not know whether these perceptions are objectively correct. We do know, however, that human beings behave in accordance with their perceptions. If dropouts are to be prevented, schools must show potential dropouts that they will respond to their needs. This section of the report provides some guidelines for self-examination for schools with dropout problems.

V. MIGRATION OF YOUNG PEOPLE FROM MONTANA

Rankings of the States[*] indicates that only 95.5% of Montana's total population in 1960 was still resident there in 1966. This made Montana the state with the ninth highest out-migration rate in the U.S.

How serious is the drain of young people from Montana? Why does it happen? Does it have implications for Montana's schools? In order to answer these questions, we examined available data. The United States Census[**] shows the number of people of various ages in each Montana county in 1960. The Montana State Department of Health[***] has estimated the distribution of Montanans by age within 20 areas for 1966. Each area contains a number of counties, as shown in Table 9. We were first interested in the young people of high-school leaving and graduating ages, those between 16 and 20 in 1966. In 1960, they were 10-14 years old. We were also interested in migration by 1966 of those who were 20-24 years old in 1960. Data for 1960 are given by the Census. For the first analysis, we estimated the numbers in the relevant age group for 1966 from data supplied by the Department of Health.

We derived a retention ratio (the complement of the migration ratio) for each area and for the state by, for example, dividing the number of 16-20 year olds in 1966 by the number of 10-14 year olds in 1960. The higher this ratio, the more of the area's youths remained. The lower the ratio, the more of them left the area. We can see in Table 10 that the ratio for Montana was .812, indicating that almost one out of every five youths left Montana within a few years of high school graduation age. This retention ratio is considerably lower than the .955 for all age groups for the same time period.

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[*] National Education Association, Rankings of The States, Research Report 1668-R1, 1968, Washington, D.C.

[**] U.S. Bureau of the Census, Census of Population. 1960 General Population Characteristics, Montana, U.S. Government Printing Office, Washington, D.C., 1961. Final Report PC(1)-28B.

[***] Montana State Department of Health, Division of Records and Statistics, Helena, Montana, undated tables, "Adjusted 1966 Population."

TABLE 9

POPULATION ESTIMATION AREAS AND THEIR COUNTIES

Area	County(ies)
1	Lake Lincoln Mineral Sanders
2	Flathead
3	Glacier Pondera Teton Toole
4	Chouteau Hill Liberty
5	Blaine Fergus Petroleum Phillips
6	Valley
7	Daniels Roosevelt Sheridan
8	Missoula
9	Deer Lodge Powell
10	Lewis & Clark
11	Cascade
12	Broadwater Golden Valley Jefferson Judith Basin Meagher Musselshell Wheatland

TABLE 9 (Continued)

POPULATION ESTIMATION AREAS AND THEIR COUNTIES

Area	County(ies)
13	Big Horn Garfield Rosebud Treasure
14	Dawson McCone Prairie Richland Wibaux
15	Beaverhead Granite Madison Ravalli
16	Silver Bow
17	Gallatin
18	Carbon Park Stillwater Sweet Grass
19	Yellowstone
20	Carter Custer Fallon Powder River

We considered the possibility that one of the reasons why the out-migration rate of young Montanans is so high is that many enlist in the Armed Services. Evidence for this hypothesis comes from a study of Navy reenlistment.* Although Montanans made up 0.35% of the United States population in 1967, according to Rankings of the States, they made up 0.73% of Navy men whose first term enlistments ended between August 1962 and July 1963. Studies indicate that both enlistment and reenlistment in the military services is higher for youths from rural than for youths from urban areas.

In Table 10, the lowest retention ratio, .510, holds for area 12, which includes Broadwater, Golden Valley, Jefferson, Judith Basin, Meagher, Musselshell, and Wheatland Counties. The highest retention ratio, 1.242, holds for area 6, Valley County. This area actually attracted some young people between 1960 and 1966.

Table 11 shows the number of 20-24 year olds in 1960, the number of 26-30 year olds in 1966, and the retention ratio. The retention ratio for 20-24 year olds for the state is .878, almost a tenth higher than that for 10-14 year olds, but still less than that for the population as a whole. The lowest ratio, .517 holds for area 17, Gallatin County. The highest, 1.12, characterizes area 1, (Lake, Lincoln, Mineral, and Sanders Counties), one of four areas which gained young people between 1960 and 1966.

In order to see why young Montanans leave the state, the retention ratios of 10-14 year olds and 20-24 year olds in 1960 in 20 areas were correlated with three other variables in the same areas: a) *per capita* educational expenditures, b) per cent of employment that is white collar, and c) per cent of the population that is rural. Per capita educational expenses were derived from *1968 Biennial Report, State of Montana, Superintendent of Public Instruction,* Tables 9 and 19, for 1966-67. We added the expenses for the area and divided by the Average Number belonging to the schools in the area. Per cent of employment that is white collar and rural population percentage were obtained from the County and City Data Book, 1967.** The correlations between retention ratios and the other three variables were as follows:

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* Singer, A., Morton, A. S., *et al.*, *Multivariate Study of Enlisted Retention, (MUSTER)* Cambridge, Mass: Institute of Naval Studies, 1964.

** U. S. Bureau of the Census, U.S. Government Printing Office, Washington, D. C., 1967.

TABLE 10

MONTANA AREAS AND SOME OF THEIR CHARACTERISTICS

Area	1960 Population, Age 10-14	1966 Population Age 16-20	Retention Ratio	Per Capita Educational Expenditures	Per Cent of Employment White Collar	Per Cent of Population Rural
1	3744	3033	.810	$561	32.7	89.7
2	3337	2789	.836	657	41.5	60.2
3	3655	2107	.576	696	33.7	66.9
4	2843	1597	.562	759	33.1	64.3
5	2959	1601	.541	767	30.4	75.1
6	1537	1909	1.242	678	36.6	62.5
7	2398	1542	.643	777	32.3	83.2
8	4126	5011	1.214	653	47.5	30.8
9	2357	1997	.847	556	28.2	34.5
10	2707	2781	1.027	757	55.2	27.8
11	6745	6022	.893	626	46.7	21.5
12	2310	1178	.510	764	29.1	88.1
13	2241	1890	.843	806	28.1	84.8
14	3282	1666	.508	667	35.5	60.7
15	2726	2080	.763	659	29.6	87.3
16	4374	4435	1.014	678	40.3	13.6
17	2314	2646	1.143	648	45.1	48.7
18	3059	1946	.636	885	30.1	73.4
19	8120	6743	.830	700	49.4	99.7
20	2208	1426	.646	567	38.9	59.4
State	67042	54399	.812			

TABLE 11

COMPUTATION OF RETENTION RATIOS FOR 20-24 YEAR OLDS IN 1960 IN 20 AREAS IN MONTANA

Area	1960 Population, Age 20-24	1966 Population, Age 26-30	Retention Ratio
1	1,766	1,978	1.120
2	1,469	1,621	1.103
3	1,885	1,500	.796
4	1,734	1,153	.665
5	1,389	1,114	.802
6	1,502	1,619	1.078
7	1,082	989	.914
8	3,621	2,766	.764
9	1,249	1,096	.878
10	1,511	1,618	1.071
11	5,673	5,338	.941
12	1,007	835	.829
13	1,076	973	.904
14	1,580	1,267	.802
15	1,328	1,209	.910
16	2,050	2,208	1.077
17	2,730	1,412	.517
18	1,272	943	.741
19	4,430	4,146	.936
20	1,224	978	.799
	39,578	34,763	.878

	10-14 year olds, 1960	20-24 year olds, 1960
1. Per capita educational expenditures	-0.292	-0.194
2. Per cent of white collar employment	0.576	0.146
3. Per cent of population rural	-0.510	-0.054

Let us first discuss the first column of correlations, in order of size. The second correlation indicates a highly statistically significant (better than the .01 level) relation between the availability of white collar jobs in an area and the proportion of the youths in that area who remain there after high school. The third correlation indicates a statistically significant (better than the .05 level) relation between the proportion of rural people in an area and the proportion of the youth that leave. The first correlation indicates a (non-statistically significant) relationship between the amount an area pays for the schooling of each student and the proportion of youths who leave the area. We have interpreted this relationship as actually deriving from only a portion of the educational expenditures: school bus transportation, a factor related to the rural nature of an area. (In 1963-64 Montana paid for transportation almost $100 per pupil transported. It ranked third among the states in this respect.*)

The second column of correlations, showing relationships between the three variables and the retention ratio of those who were 20-24 years old in 1960, follows the same pattern as the first column, in terms of the signs of the correlations (plus or minus). However, none of the correlation coefficients in the second column is statistically significant. Thus, all we can say is that the variables which are significantly correlated to the retention ratio of 10-14 year olds are correlated in the same way, although not significantly so, with the retention ratio of 20-24 year olds.

Thus, we interpret the first correlation as expressing, in a more attenuated manner, what the second and third tell us: youths leave Montana because they want white collar employment, and its availability there is limited, especially in the rural areas. The implication for Montana educational needs is parallel to the discussion in the previous chapter. Montana needs to prepare its students for a wide range of occupational opportunities, often wider than the range they can find in their own area or in the state. One out of every five students leaving the state by the age of 20 is a significant minority, and the schools need to respond to their needs.

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* National Education Association, Rankings of the States, 1968, Washington, D. C., 1968.

APPENDIX A

TESTS OF REPRESENTATIVENESS OF RANDOM SAMPLE

TESTS OF REPRESENTATIVENESS OF RANDOM SAMPLE

Estimated Enrollment Grades 4-12	10,372
Number of Primary Sampling Units	69

By Geography

Quadrant	Sample Total Enrollment	%	Population Total Enrollment	%
1-NW	6422	46	86190	47
2-SW	2884	21	34845	19
3-SE	2745	20	37827	20
4-NE	1843	13	24784	14
Total	13894	100	183646	100

By Type of School

Type of School	Sample Total Enrollment	%	Population Total Enrollment	%
Elementary	9393	67	115473	63
Junior High	1472	11	18560	10
High	3029	22	49613	27
Total	13894	100	183646	100

By % Urban

Urban Percentage	Sample Total Enrollment	%	Population Elem. School ANB	%
0-25	4433	32	30941	22
26-50	1776	13	22877	16
51-75	3714	27	41882	31
76-100	3971	28	42551	31
Total	13894	100	138251	100

By Taxable Valuation per Elementary School ANB

Taxable Valuation Elementary School ANB	Sample Elementary School Enrollment	%	Population Elementary School ANB	%
$ 0-4999	1834	22	27671	20
5000-5999	2480	29	36593	26
6000-7499	2813	33	47209	34
7500-9999	749	9	12106	9
10000-12499	432	5	6750	5
12500 & over	189	2	7922	6
Total	8497	100	138251	100

LIST OF COUNTIES BY QUADRANT

1ST QUADRANT NORTHWEST

7[a] - Cascade
8 - Chouteau
15 - Flathead
18 - Glacier
21 - Hill
23 - Judith Basin
24 - Lake
25 - Lewis & Clark
26 - Liberty
27 - Lincoln
31 - Mineral
32 - Missoula
37 - Pondera
39 - Powell
45 - Sanders
50 - Teton
51(17)[b] - Toole

2ND QUADRANT SOUTHWEST

1 - Beaverhead
4 - Broadwater
12 - Dear Lodge
16 - Gallatin
20 - Granite
22 - Jefferson
29 - Madison
30 - Meager
34 - Park
41 - Ravalli
47 - Silver Bow
49 - Sweet Grass
54 (13) - Wheatland

3RD QUADRANT SOUTHEAST

2 - Big Horn
5 - Carbon
6 - Carter
9 - Custer
13 - Fallon
19 - Golden Vally
33 - Musselshell
38 - Powder River
44 - Rosebud
48 - Stillwater
52 - Treasure
56(12) - Yellowstone

4TH QUADRANT NORTHEAST

3 - Baine
10 - Daniels
11 - Dawson
14 - Fergus
17 - Garfield
28 - McCone
35 - Petroleum
36 - Phillips
40 - Prairie
42 - Richland
43 - Roosevelt
46 - Sheridan
53 - Valley
55(14) - Wibaux

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a. Code number indicating alphabetical placement of county.
b. Number of counties in quadrant.

APPENDIX B

QUESTIONNAIRES SENT AND RETURNED

TABLE B-1

QUESTIONNAIRES SENT AND RETURNED

Respondent Group		In Sample	Number Returned	% Returned	Usable in Scaling Analysis	% of Returned Usable in Scaling Analysis
1. Parents and Community Leaders	A	1080	501	46	374	75
	B	1079	508	47	359	71
	Total	2159	1009	47	733	73
2. Educators, Grades K-8	A	259	135	52	88	65
	B	260	144	55	101	70
	Total	519	279	54	189	68
3. Educators, Grades 9-12	A	203	140	69	100	71
	B	203	131	64	101	77
	Total	406	271	67	201	74
4. Students, Grades 4-6	A	1772	1071	60	-	-
	B	1772	1052	59	-	-
	Total	3544	2123	60	-	-
5. Students, Grades 7,8	A	947	877	93	552	63
	B	947	867	92	619	71
	Total	1894	1744	92	1171	67
6. Students, Grades 9-12	A	2522	2079	82	1272	61
	B	2521	2148	85	1346	63
	Total	5043	4227	84	2618	62
Grand Total		13565	9653	71	4912	65*

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* Does not include students, grades 4-6, in denominator or numerator.

APPENDIX C

GROUPINGS FOR ANALYSIS OF RANKINGS OF EDUCATIONAL NEEDS

APPENDIX C

GROUPINGS FOR ANALYSIS OF RANKINGS OF EDUCATIONAL NEEDS

Questionnaire	Subgroup	Questionnaire Code	Subgroup Code	
			A	B
Parents and Community Leaders	All	1	01	02
	Child in grade 7 or 8 (q. 19, answer 3)	1	17	18
	Child in grades 9-12 (q. 19, answer 4)	1	19	20
	District size* 1-300 elem;1-600 sec.	1	03	04
	District size* >300 elem;>600 sec.	1	05	06
	Government or non-profit organization official or employee. Question 19, answers: 5 Office of Superintendent of Public Instruction 6 County Superintendent 7 Government official 8 Government employee 9 Labor union official 10 Anti-poverty agency official 13 Teacher or administrator	1	21	22
	Community influential. Question 19, answers: 11 Clergyman 12 Member of organization 14 Businessman, farmer or rancher	1	23	24
Educators, K-8	All	2	01	02
	District size*1-300	2	03	04
	" size*> 300	2	05	06
	Age 35 ≤ (q. 23)	2	07	08
	Age ≥ 36 (q. 23)	2	09	10
	Administrator (q. 25)	2	11	12
	Guidance (q. 25)	2	13	14
	Teaching (q. 25)	2	15	16
Educators, 9-12	All	3	01	02
	District size*1-600	3	03	04
	" size*> 600	3	05	06
	Age 35 ≤ (q. 23)	3	07	08
	Age ≥ 36 (q. 23)	3	09	10
	Administrator (q. 25)	3	11	12
	Guidance (q. 25)	3	13	14
	Teaching (q. 25)	3	15	16

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* The number of students in the whole district, not just the number in the grades of interest for a particular questionnaire.

APPENDIX C (Continued)

Questionnaire	Subgroup	Questionnaire Code	Subgroup Code A	Subgroup Code B
Students, 7,8	All	5	01	02
	District size* 1-300	5	03	04
	" size* > 300	5	05	06
Students, 9-12	All	6	01	02
	District size* 1-600	6	03	04
	" size* > 600	6	05	06

Number of Analysis Groups

Parents and Community Leaders	14
Educators, Grades K-8	16
Educators, Grades 9-12	16
Students, Grades 4-6	0
Students, Grades 7,8	6
Students, Grades 9-12	6
Total	58

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* The number of students in the whole district, not just the number in the grades of interest for a particular questionnaire.

APPENDIX D

SIMILARITY IN MOST URGENT NEEDS AMONG RESPONDENT GROUPS

APPENDIX D

SIMILARITY IN MOST URGENT NEEDS AMONG RESPONDENT GROUPS

Table 2 shows educational issues scaled as most urgent by one or more groups of respondents. An issue was listed in this table if its scale value of urgency of need for improvement was in the top quartile for one or more respondent groups. The table shows the ranks of the scale values for each respondent group completing the multiple rank orders, for each such issue. Ranks in parentheses are below the top quartile for the given respondent group.

How similar were the respondent groups in the issues which they considered most urgent? Two kinds of statistical measures indicate that they were much more consistent than would have been expected by chance. First, row a indicates how many issues are in the top quartile and row d shows how many issues in total were ranked by each respondent group. Adding the first set we see that a total of 37 issues could have been mentioned in the top quartile, if the lists in each column were completely unrelated to one another. In fact, only 16 issues were mentioned in the top quartiles of the five respondent groups. On the other hand, if there had been complete agreement, only nine issues would have been named (by groups 3 and 6) and some sub-set of these would have been named by each of the other grojps, making nine issues in all. The number of issues named, 16, is thus much closer to the number with maximum overlap and agreement (nine) than to the number with complete disagreement (37).

We may look at the agreement obtained in another way. Suppose that we take as a given the issues in the top quartile for respondent group 1 (seven issues) and the one issue listed in parentheses in that column. If only chance were operating, how would the issues in the other four columns distribute themselves among top quartile and other issues? There are 56 non-blank entries in Table 2. Table D-1 shows that eight of them are in column 1; thus, 48 are in the other columns. The chance (theoretical) distribution of these would be 12 (one-quarter) in the top quartiles for their respondent groups and 36 (three-quarters) not in the top quartile. The observed distribution shows 30 (two and one-half times 12) in the top quartile and 18 (only half of 36) in the bottom three quartiles.

A similar analysis shown in Table D-1, taking the second respondent group as fixed, shows 29 issues (almost three times the theoretical number, 11) in the top quartile for columns other than 2, and 15 (less than half the theoretical number, 33) in the other three quartiles. Similar analyses can be carried out taking columns for respondent groups 3,5, and 6, respectively, as given. They would also show much above-chance numbers of top quartile issues in the other columns. Thus, we come to the conclusion that respondent groups agreed independently in assigning the highest urgency for needs for improvement to similar sets of issues.

TABLE D-1

AGREEMENT AMONG RESPONDENT GROUPS ABOUT MOST URGENT NEEDS

	All Groups	Group 1	Groups 2,3,5,6		Group 2	Groups 1,3,5,6	
	Obs.	Obs.	Obs.	Theor.	Obs.	Obs.	Theor.
Top Quartile	37	7	30	12	8	29	11
Other Quartiles	19	1	18	36	4	15	33
Total	56	8	48	48	12	44	44

Obs. = Observed

Theor. = Theoretical

APPENDIX E

DIFFERENCES AMONG SUB-GROUPS IN PRIORITIES OF MOST CRITICAL NEEDS

APPENDIX E

DIFFERENCES AMONG SUB-GROUPS IN PRIORITIES OF MOST CRITICAL NEEDS

Whenever a sub-group's ranking of criticalness of one of the high priority needs discussed in section A of Chapter IV differed by more than three from the rank for that sub-group's total group, we discuss the difference in this Appendix. Sub-groups are delineated in Appendix C. In this Appendix, issues are treated in the order used in Chapter IV.

The data on which this Appendix is based are shown in Tables E-1 and E-2.

1. Relevance of Subjects for Future Plans of Students

Although educators in grades K-8 as a group gave only ninth priority to the area of the relevance of school subjects for the future of students, guidance counselors in these grades gave this area second priority, thus approximating the priority that the other groups gave it. A strategy for implementation of improvements in this area should, we believe, rely heavily on guidance counselors.

2. Relevance of Subjects to the Present Needs of Students

Educators in grades K-8 gave this issue second priority. However, the administrator and guidance counselor sub-groups in this group gave it fifth priority; teachers are the source of the high (second) priority that educators in grades K-8 give to this area.

Guidance counselors for grades 9-12 gave this area ninth priority, although the total group of educators in grades 9-12 gave it third priority.

3. Help for Students with Reading Problems

Administrators in grades 9-12 gave this area fifth priority, noticeably lower than the second priority which all educators in grades 9-12 gave it. There is some evidence, then, that administrators, further removed from the students and their problems, are less aware of reading difficulties than are the teachers working directly with the students.

TABLE E-1

RANKS OF NEEDS FOR IMPROVEMENT, EDUCATORS K-8 AND SUB-GROUPS

ID	Title	All	Small Districts	Large Districts	35 or Younger	36 or Older	Adminis-trators	Guidance Counselors	Classroom Teachers
	CURRICULUM:								
*3 C	Relevance of subjects to future	9	5	10	8	10	8	2	10
*5 E	Relevance of subjects to present	2	2	1	4	1	5	5	2
*6 F	Learn about self	3	3	6	2	7	4	8	4
9 I	Required courses	22	26	23	28	19	28	26	21
	TEACHING METHODS								
10J	Group or individual teaching	10	7	9	9	8	12	7	9
11K	Repeat material	25	25	27	26	24	26	24	20
*12L	Examine different points of view	12	15	14	14	12	18	13	17
*13M	Raise questions, self expression	7	10	4	7	4	6.5	11	1
14N	Present lessons to different races	31	32	31	31	31	32	29	31
*15O	Use of audiovisual materials	16	14	18	19	16	15	25	18
16P	Use of educational TV	19	19	17	21	14	24	15	6
17Q	Subject matter or communication	11	11	11	11	11	11	9	12
*18R	Help for reading problems	1	1	2	1	2	2	1	8
19S	Who gets special attention	17	18	15	18	17	9	17	13
20T	Lecture vs. discussion	21	22	21	20	25	17	19	28
21U	Help from teacher aides	14	16	13	15	13	13	16	14
*22V	Teacher sensitivity training	4	9	3	5	5	3	10	3
*23W	Support, individual instruction	6	4	7	6	3	6.5	3	7
*24X	Educational field trips	18	13	20	16	18	16	20	16
	SCHOOL ORGANIZATION AND ATMOSPHERE:								
25Y	Teachers treat rule-breakers	29	24	28	23	29	23	30	22
26Z	Who makes school rules	30	29	30	30	30	30	27	30
27AA	Treat students of different races	28	30	24	29	20	22	31	26
28AB	Time supervising non-class activity	23	23	25	27	22	29	22	23
32AF	Time spent record keeping	26	27	26	24	26	25	23	27
33AG	Raising issues at staff meetings	32	31	32	32	32	31	28	32

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* Issues in top quartile.

TABLE E.1 (Continued)

ID	Title	All	Small Districts	Large Districts	35 or Younger	36 or Older	Adminis-trators	Guidance Counselors	Classroom Teachers
	COUNSELING AND INFORMATION TO STUDENTS:								
* 38AL	Teachers help students with learning	8	8	8	10	6	14	4	5
* 39AM	Availability of personal problem counseling	5	6	5	3	9	1	6	11
	PROVISIONS FOR SPECIAL EDUCATION:								
43AG	Programs for emotionally disturbed	13	17	12	13	15	10	14	15
44AR	Availability of kindergarten	15	12	19	12	21	20	12	24
46AT	Programs for physically handicapped	24	28	22	25	27	27	32	19
47AU	Programs for mentally handicapped	20	21	16	17	23	21	18	25
	SCHOOLS AND COMMUNITY:								
48AV	Parents, community role in schools	27	20	29	22	28	19	21	29

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* Issues in top quartile.

TABLE E-2

RANKS OF NEEDS FOR IMPROVEMENT, EDUCATORS 9-12 AND SUB-GROUPS

ID	Title	All	Small Districts	Large Districts	35 or Younger	36 or Older	Adminis-trators	Guidance Counselors	Classroom Teachers
	CURRICULUM:								
1 A	Who decides curriculum	23	27	20	24	20	25	21	24
* 3 C	Relevance of subjects to future	1	1	2	1	1	1	1	1
* 5 E	Relevance of subjects to present	3	3	5	3	4	4	9	5
* 6 F	Learn about self	6	5	6	4	7	2	4	7
7 G	High school, courses in family life	16	8	22	14	21	8	18	15
9 I	Required courses	19	21	19	26	14	29	11	14
	TEACHING METHODS:								
10J	Group or individual teaching	15	16	15	15	16	11	13	12
11K	Repeat material	34	33	33	34	34	33	35	30
* 12L	Examine different points of view	14	15	13	16	11	10	12	18
* 13M	Raise questions, self expression	4	4	4	6	3	3	3	4
14N	Present lessons to different races	37	38	36	37	37	38	33	32
* 15O	Use of audiovisual materials	22	20	24	27	19	28	20	19
16P	Use of educational TV	31	30	31	31	27	30	36	37
17O	Subject matter or communication	13	13	14	13	15	13	10	11
* 18R	Help for reading problems	2	2	1	2	2	5	2	2
19S	Who gets special attention	21	22	21	21	23	18	17	26
20T	Lecture vs. discussion	29	31	25	30	24	32	25	22
21U	Help from teacher aides	18	23	18	18	18	24	26	23
* 22V	Teacher sensitivity training	8	11	7	8	8	14	16	13
* 23W	Support, individual instruction	9	9	9	9	9	9	6	16
* 24X	Educational field trips	25	19	26	23	25	21	14	21
	SCHOOL ORGANIZATION AND ATMOSPHERE:								
25Y	Teachers treat rule-breakers	28	26	29	28	28	26	23	25
26Z	Who makes school rules	30	29	30	29	26	20	27	28
27AA	Treat students of different races	38	37	38	38	38	37	38	38
28AB	Time supervising non-class activity	33	32	35	32	35	31	31	27
32AF	Time spent record keeping	36	35	37	35	36	35	37	29
33AG	Raising issues at staff meetings	35	34	34	36	33	36	32	34

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* Issues in top quartile.

TABLE E-2 (Continued)

	ID	Title	All	Small Districts	Large Districts	35 or Younger	36 or Older	Adminis-trators	Guidance Counselors	Classroom Teachers
		COUNSELING AND INFORMATION TO STUDENTS:								
*	37AK	Range of vocational-technical education	7	6	8	7	6	7	8	10
*	38AL	Teachers help students with learning	5	7	3	5	5	6	7	3
*	39AM	Availability of personal problem counseling	12	14	12	10	17	15	22	9
	40AN	Location of job training and opportunities	11	12	11	11	12	12	5	8
	41AO	Range of counseling about jobs	17	18	16	17	13	17	19	17
*	42AP	Availability of job counseling	10	10	10	12	10	16	29	6
		PROVISIONS FOR SPECIAL EDUCATION:								
	43AQ	Programs for emotionally disturbed	20	28	17	19	22	22	15	20
	44AR	Availability of kindergarten	26	25	23	22	31	23	24	36
	46AT	Programs for physically handicapped	32	36	27	33	32	34	30	33
	47AU	Programs for mentally handicapped	24	17	32	20	29	27	28	31
		SCHOOLS AND COMMUNITY								
	48AV	Parents, community role in schools	27	24	28	25	30	19	34	35

---

* Issues in top quartile.

Students in grades 9-12 in small high schools (those with fewer than 600 students) gave this area higher priority (15) than did all students (18). It seems likely that the problem is more critical in the smaller high schools.

4. Teachers Helping Students with Learning

Administrators in grades K-8 gave this area 14th priority; this contrasts with the total educator K-8 group, which gave it priority eight. Again, we probably see here the administrators' relative lack of information about student problems. Implementation of improvement for this area will very likely be spearheaded by teachers and guidance counselors.

5. Students Learning About Themselves

Among educators in grades K-8, guidance counselors gave this area eighth priority, five ranks lower than that given by the total group. It is possible that the guidance counselors believe that they fulfill the function of helping students to learn about and cope with their own feelings, group processes, etc. Clearly the total group of educators feels there is much need for improvement, and that this improvement can be implemented by courses or units in psychology, sociology, social studies, etc.

Administrators in grades 9-12 gave this area second priority, considerably higher than that given by their total group (sixth priority).

6. Training in Treating Students as Individuals

Guidance counselors in grades K-8 gave this area tenth priority, compared to the fourth rank of need given it by the total educator K-8 group.

As might be expected, among educators in grades 9-12, administrators and guidance counselors gave lower priority rankings (14th and 16th) respectively) to sensitivity training for teachers than did the total group of educators (eighth).

7. Students Directing Their Own Studies

This question was asked only of students in grades 9-12. The rankings of priorities given to this issue by students in small and in large schools were similar.

8. Adequacy of College Preparation

All sub-groups of parents and community leaders agreed in giving this issue a priority at or close to sixth.

9. Encouraging Student Independence Through Ideas and Questions

Educators in grades K-8 in small districts (fewer than 300 students) gave this issue tenth priority, contrasting with the seventh priority given it by all educators in grades K-8. In the same sub-group, guidance counselors gave it 11th priority. Thus, in grades K-8, one can expect teachers in the larger districts to take the initiative in working for improvement on this issue.

10. Range of Vocational-Technical Education

Among educators in grades 9-12, classroom teachers gave this tenth priority, lower than that of administrators and guidance counselors. Thus, guidance counselors and administrators are likely to be the most motivated change agents for improvements in this area.

11. Availability of Counseling on Job and Training Opportunities

Administrators and guidance counselors among educators in grades 9-12 assigned 16th and 29th rank, respectively, to this issue. Classroom teachers assigned it sixth rank, resulting in 10th rank given by this group as a whole. We seem again to have an instance where guidance counselors see less need for improvement in their function than do other parties at interest.

12. Availability of Counseling for Personal Problems

Among educators in grades K-8, administrators gave this area the top priority, compared to the fifth priority given to it by all K-8 educators. Teachers in grades K-8 gave it 11th priority. Thus, administrators seem to be the most motivated change agent for achieving improvement in this area.

Among educators in grades 9-12, older teachers (age 36 or older) and guidance counselors assigned the 17th and 22nd priorities to this issue, lower than the priority assigned to the total group of educators in grades 9-12.

13. Examination from Different Points of View

Among the educators in grades K-8, administrators and teachers ranked this issue 18th and 17th, respectively, contrasted to the rank of 12 given by the total group of educators in grades K-8.

14. Use of Audio-visual Materials

Guidance counselors in grades K-8 assigned priority 25 to this area, considerably less than that assigned by all educators in these grades (16).

15. Educational Field Trips

Educators in grades K-8 in small districts (those with fewer than 300 students) assigned this a higher priority (13) than did the total group of educators K-8 (18). It seems likely that small school districts are more likely to be located in country areas and thus in greater need of broadening educational experience than is the case for large districts. The small districts may also have smaller per capita budgets, than the large ones, for field trips.

16. Administrative Support for Individualized Instruction

Teachers in grades 9-12 ranked this need 16th, considerably below the rank of nine assigned by all educators for these grades. We believe this further supports our placing this issue as the least critical among thos identified in the top quartile.

17. Invariant Sub-Groups

The sub-groups of parents and community leaders were remarkably invariant in their assignment of priorities to the top quartile issues. No major differences were found among the following sub-groups:

residents in small school districts;

residents in large school districts;

parents of children in grades 7 and 8;

parents of children in grades 9-12;

officials or employees of government or non-profit organizations (Office of Superintendent of Public Instruction, County Superintendents, government officials or employees, labor union officials, anti-poverty agency officials, and college faculty members);

community influentials (clergymen, members of service organizations, and owners of large businesses, farms or ranches).

Similarly, the two sub-groups of students in grades 7 and 8 (students in districts with (a) fewer than or (b) more than 300 students) showed no major differences in their assignment of priorities to the top quartile issues.

Among educators in grades K-8, we found no major differences in the ranking of the top quartile issues between the total group and:

educators in districts with more than 300 students;

educators 35 or younger;

educators 36 or older.

We found no major difference between the rankings of the top quartile issues of all educators in grades 9-12 and their sub-groups:

in districts with 600 or fewer students;

in districts with more than 600 students;

age 35 or younger;

age 36 or older.

Finally, we found no major difference in the rankings of the top quartile issues between all students in grades 9-12 and students in districts with more than 600 students. We found only one difference (see section 3) between the total group and the sub-group of students in districts with 600 or fewer students.

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